

AMENDMENT AND RESPONSE UNDER 37 CFR 1.111

Serial No.: 09/216,378

Filed: December 18, 1998

Title: NOISE REDUCTION SCHEME FOR A COMPUTER SYSTEM

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Docket: 450.250US1

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5. [Amended] The personal computer [noise reduction scheme] of claim 1 wherein the digital signal processor is located on a sound board.
6. [Amended] The personal computer [noise reduction scheme] of claim 1 wherein the audio output connection is compatible with a standard set of headphones.
7. [Amended] The personal computer [noise reduction scheme] of claim 1 wherein the computer system is a mobile computer.
21. [New] The personal computer of claim 1 wherein the audio source comprises a compact disc playing game or music sounds.
22. [New] The personal computer of claim 1 wherein the noise cancellation signal is mixed with the audio signal to cancel ambient noise such that the audio signal is audible through a speaker coupled to the audio output connection.
23. [New] The method of claim 8 wherein the audio from the compact disc comprises music.

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on April 1, 2002, and the references cited therewith.

Claims 2-7 were amended to attend to an informality in the format of their preambles, and not to affect the patentability of such claims. Claims 21-23 are added; as a result, claims 1-23 are now pending in this application.

§102 Rejection of the Claims

Claims 1-4 and 6-20 were rejected under 35 USC § 102(e) as being anticipated by Lambrecht (US 6,259,792). This rejection is respectfully traversed as the reference does not show each and every element of the invention as claimed.

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Applicant respectfully submits that the Office Action did not make out a *prima facie* case of anticipation in that Lambrecht does not teach or show mixing of a noise cancellation signal with an audio signal. Independent claim 1 recites “mixing the noise cancellation signal with an audio signal provided from a desired source for provision to an audio output connection.” Lambrecht only describes methods to “reproduce the cancellation signal.” Col. 4, lines 41-43. It does describe the use of previously stored anti-noise patches at Col. 4, lines 49-53: “Multiple anti-noise patches may be defined as part of the patch set. For example, one anti-noise patch may effectively cancel airplane noise while another anti-noise patch may effectively cancel automobile noise.” However, these are all an effort to cancel noise. At no point is there discussion of mixing the noise cancellation signal with an audio signal provided from a desired source as claimed. Since Lambrecht does not teach or show this element, the rejection should be withdrawn.

Independent claim 8 also describes mixing of the noise cancellation signal with audio. Further, the preamble discusses “reducing ambient noise normally heard by a user through headphones when listening to audio provided via a mobile computer system,”. Thus, the purpose is clearly to listen to the audio, not use it to cancel noise. The noise cancellation signal and the audio are clearly different things. One is meant to be heard, and the other is meant not to

be heard. Lambrecht is only concerned with producing the signal which cancels other noise, and by that, is meant not to be heard. Since Lambrecht does not teach or show this element, the rejection should be withdrawn.

Independent claim 13 also recites "mixing the noise cancellation signal with an audio signal for provision to an audio output connection." Two signals are mixed, where Lambrecht only products one signal, a noise cancellation signal not meant to be heard because it cancels ambient noise. Since Lambrecht does not teach or show this element, the rejection should be withdrawn.

Independent claim 16 has a last element identical to the last element of claim 1, and clearly distinguishes Lambrecht for the same reasons as does claim 1. Since Lambrecht does not teach or show this element, the rejection should be withdrawn.

§103 Rejection of the Claims

Claims 5 was rejected under 35 USC § 103(a) as being unpatentable over Lambrecht (US 6,259,792) in view of Eatwell (US 5,828,768). This rejection is respectfully traversed.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To do that the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id.*

The *Fine* court stated that:

Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so." *Id.* (emphasis in original).

The M.P.E.P. adopts this line of reasoning, stating that

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992). At the same time, however, although it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979)).

Applicant respectfully submits that the Office Action did not make out a *prima facie* case of obviousness. Claim 5 depends from claim 1, which has been clearly distinguished from Lambrecht on the basis of mixing a noise cancellation signal with an audio signal. Eatwell does not teach or suggest this missing element. In fact, Eatwell only cancels noise to enhance voice recognition, not to canceling ambient noise heard by a person. As such, there is no reason to combine the references. A *prima facie* case of obviousness has not been established, and the rejection should be withdrawn.

New claims 21-23

New claims 21-23 have been added to further define the audio signal. Support for the claims is found on page 1, line 21 for music and numerous other references to compac discs and DVDs, page 5, line 18 for games, and for the audio signal being audible, on page 2, lines 19-27.